

Application No. 10/530,130

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AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method of making a heat-sensitive lithographic printing plate precursor comprising the steps of
 - (i) providing a web of a lithographic support having a hydrophilic surface;
 - (ii) applying a coating comprising a phenolic resin on the hydrophilic surface of the web;
 - (iii) drying the coating by supplying heat to the coated web;
 - (iv) an active cooling step wherein the web temperature is reduced at an average cooling rate which is higher than if the web would be kept under ambient conditions but not ~~higher than and varies between 0.5 and 30°C/s~~; and
 - (v) winding the precursor on a core or cutting the precursor into sheets.
2. (Previously Presented) The method according to claim 1 wherein the average cooling rate is not higher than 20°C/s.
3. (Previously Presented) The method according to claim 1 wherein the average cooling rate is not higher than 10°C/s.
4. (Previously Presented) The method according to claim 1 wherein at the beginning of the cooling step the web temperature is higher than Tg, the glass transition temperature of the coating comprising the phenolic resin, and wherein during the cooling step the web temperature is reduced from T1 to T2, T1 being higher than Tg and T2 being lower than Tg, at an average cooling rate which is lower than 10°C/s.
5. (Previously Presented) The method according to claim 4 wherein during the cooling step the web temperature is reduced
 - in a first phase down to T1 at an average cooling rate of at least 10°C/s; and
 - in a second phase from T1 to T2 at an average cooling rate which is lower than 10°C/s.

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6. (Previously Presented) The method according to claim 4 wherein during the cooling step the web temperature is reduced

- in a first phase down to T1 at an average cooling rate of at least 10°C/s; and
- in a second phase from T1 to T2 at an average cooling rate which is lower than 10°C/s; and
- in a third phase from T2 to about ambient temperature at an average cooling rate of at least 10°C/s.

7. (Previously Presented) The method according to claim 4 wherein the cooling from T1 to T2 proceeds at an average cooling rate which is lower than 5°C/s.

8. (Previously Presented) The method according to claim 4 wherein T1 is Tg+20°C and T2 is Tg-20°C.

9. (Previously Presented) The method according to claim 4 wherein T1 is Tg+10°C and T2 is Tg-10°C.

10. (Previously Presented) The method according to claim 1 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

11. (Previously Presented) The method according to claim 2 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

12. (Previously Presented) The method according to claim 3 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

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13. (Previously Presented) The method according to claim 11 wherein during the cooling step the web temperature is reduced

- in a first phase down to T1 at an average cooling rate of at least 10°C/s; and
- in a second phase from T1 to T2 at an average cooling rate which is lower than

10°C/s.

14. (Previously Presented) The method according to claim 12 wherein during the cooling step the web temperature is reduced

- in a first phase down to T1 at an average cooling rate of at least 10°C/s; and
- in a second phase from T1 to T2 at an average cooling rate which is lower than

10°C/s.

15. (Previously Presented) The method according to claim 11 wherein during the cooling step the web temperature is reduced

- in a first phase down to T1 at an average cooling rate of at least 10°C/s; and
- in a second phase from T1 to T2 at an average cooling rate which is lower than

10°C/s; and

-in a third phase from T2 to about ambient temperature at an average cooling rate of at least 10°C/s.

16. (Previously Presented) The method according to claim 12 wherein during the cooling step the web temperature is reduced

- in a first phase down to T1 at an average cooling rate of at least 10°C/s; and
- in a second phase from T1 to T2 at an average cooling rate which is lower than

10°C/s; and

-in a third phase from T2 to about ambient temperature at an average cooling rate of at least 10°C/s.

17. (Previously Presented) The method according to claim 5 wherein the cooling from T1 to T2 proceeds at an average cooling rate which is lower than 5°C/s.

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18. (Previously Presented) The method according to claim 6 wherein the cooling from T1 to T2 proceeds at an average cooling rate which is lower than 5°C/s.

19. (Previously Presented) The method according to claim 5 wherein T1 is Tg+20°C and T2 is Tg-20°C.

20. (Previously Presented) The method according to claim 6 wherein T1 is Tg+20°C and T2 is Tg-20°C.

21. (Previously Presented) The method according to claim 7 wherein T1 is Tg+20°C and T2 is Tg-20°C.

22. (Previously Presented) The method according to claim 5 wherein T1 is Tg+10°C and T2 is Tg-10°C.

23. (Previously Presented) The method according to claim 6 wherein T1 is Tg+10°C and T2 is Tg-10°C.

24. (Previously Presented) The method according to claim 7 wherein T1 is Tg+10°C and T2 is Tg-10°C.

25-29. (Canceled)

30. (Previously Presented) The method according to claim 4 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

31. (Previously Presented) The method according to claim 5 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

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32. (Previously Presented) The method according to claim 6 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

33. (Previously Presented) The method according to claim 7 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

34. (Previously Presented) The method according to claim 8 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

35. (Previously Presented) The method according to claim 9 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

36. (Canceled)

37. (Previously Presented) The method according to claim 17 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

38. (Previously Presented) The method according to claim 18 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

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39. (Previously Presented) The method according to claim 19 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.

40. (Previously Presented) The method according to claim 22 further comprising a heating step between step (iii) and step (iv), wherein during said heating step the web temperature is maintained above the glass transition temperature of the phenolic resin during a period of between 0.1 and 60 seconds.